

REMARKS

Reconsideration and allowance of this application are respectfully requested. Claims 1-21 and 29-38 remain in this application and, as amended herein, are submitted for the Examiner's reconsideration.

Claims 1-2, 4, 7-8, 10, 13-14, 16 and 19-38 have been amended to have the claims better conform to the requirements of U.S. practice and to place the application in condition for allowance. No new matter has been added by these amendments. It is therefore submitted that this Amendment should be entered.

In the Office Action, the Examiner objected to the numbering of the claims as not being in accordance with 37 CFR 1.126. The Examiner incorrectly asserted that new claims 29-38, which were added in the Amendment dated February 10, 2004, should be renumbered as claims 24-33. However, claims 24-28 were previously added in a Preliminary Amendment dated October 31, 2002 and then cancelled in the February 10, 2004 Amendment. Therefore, it is submitted that Applicants' numbering of the claims is correct.

Claims 4, 10 and 16 were rejected under 35 U.S.C. § 112, second paragraph. The claims have been amended to correct the informalities. It is therefore submitted that claims 4, 10 and 16 are in full compliance with the requirements of 35 U.S.C. § 112.

Turning now to the art rejections, the Examiner rejected claims 1-21 and 24-33 (actual claims 29-38) under 35 U.S.C. § 102(e) as being anticipated by Naoi (U.S. Patent No. 6,683,617). It is submitted, however, that the claims are patentably distinguishable over Naoi.

The Naoi patent describes image processing of *polygons* representing a three-dimensional image on a scanning line basis. The edges of each polygon are divided into segments according to *the scan lines* that intersect the polygon, and the *polygon edge*

segments of a given scan line are further divided among four sub-lines, each one-fourth the size of a pixel. The *polygons* lying along each sub-line are then sorted according to their X-coordinate values, and the *polygons* that occupy the same region of a sub-line are sorted according to their Z-coordinate values. The display site data of each sub-line is then combined for each given polygon and then further combined for each scan line, and then sub-pixel masks of each polygon are formed for each pixel. Color data is then associated with each sub-pixel mask, and the sub-pixel masks for a given pixel are iteratively processed by (i) *combining* four such sub-pixel masks to form eight new sub-pixel masks, (ii) *selecting* four of the eight new sub-pixel masks to *replace* the prior four sub-pixel masks, and (iii) entering additional such data and repeating steps (i) and (ii) until all such data for the pixel is processed. (See Figs. 1-7 and 10; col. 3, line 34 - col. 4, line 8; col. 4, lines 15-23; col. 5, line 41 - col. 7, line 39; col. 8, lines 1-6 and 60-65, col. 9, lines 26-35; col. 10, lines 8-14 and 55-67; and col. 11, lines 1-9). Thus, Naoi describes dividing the image along *scan lines* and along sub-lines of a *scan line*. The patent does not suggest extracting data representing a *predetermined line part of an object depicted in a three-dimensional image*.

Naoi does not suggest:

extracting means for extracting data representing a predetermined line part of an object depicted in a three-dimensional image from data representing the three-dimensional image

as called for in claim 1.

Further, Naoi describes anti-aliasing the edge segments of the *polygons* that approximate the three-dimensional image and does not suggest forming an antialiased image portion of the *predetermined line part of the depicted object*.

Naoi does not suggest:

antialiased image forming means for forming an antialiased image portion of the predetermined line part of the depicted object by antialiasing the extracted data

as defined in claim 1.

Additionally, Naoi describes repeatedly combining four sub-pixel masks and selecting four of the eight new sub-pixel masks to replace the previous four sub-pixel masks, namely, Naoi describes the overwriting of *sub-pixel masks*. Further, Naoi describes carrying out this repetitive process for *each pixel* of the image. The patent does not suggest overwriting *only the antialiased image portion*.

Naoi does not suggest:

overwriting means for overwriting only the antialiased image portion onto a corresponding portion of the rendered image

as set out in claim 1.

It follows that Naoi does not suggest the combination called for in claim 1 and does not anticipate the claim.

Claims 2-6 and 29 depend from claim 1, and each further defines and limits the invention set out in the independent claim. It follows that each of claims 2-6 and 29 likewise defines a combination that is patentably distinguishable over Naoi.

Additionally, regarding claims 2 and 29, the Examiner acknowledges that Naoi does not teach extracting data representing contour lines or data representing contour lines and contour candidates as the data representing the predetermined line part, as defined in claim 2. Further, based on the Examiner's similar arguments regarding claim 29, it follows that the Examiner also acknowledges that Naoi does not teach that the predetermined line part represents a visually

important portion, as defined in claim 29. Therefore, the rejection of claims 2 and 29 under 35 U.S.C. § 102 is improper.

Claim 7 is directed to an image rendering method that includes limitations similar to those set out in claim 1. Therefore, claim 7 is patentably distinguishable over Naoi at least for the same reasons.

Claim 8-12 and 30 depend from claim 7 and are distinguishable over the reference at least for the same reasons. Moreover, the Examiner's rejection of claim 8 under 35 U.S.C. § 102 is improper for the reasons set out above regarding claim 2.

Claim 13 is directed to a computer-readable storage medium having a computer program stored therein for operating an apparatus to perform the image rendering method set out in claim 7. Therefore, claim 13 is patentably distinguishable over the Naoi patent at least for the same reasons.

Claim 14-18 and 31 depend from claim 13 and are distinguishable over the cited reference at least for the same reasons. Additionally, the rejection of claim 14 under 35 U.S.C. § 102 is improper for the reasons set out above regarding claim 2.

Claim 19 relates to a server apparatus that includes a computer-readable storage medium similar to that defined in claim 13. Therefore, at least for the same reasons, claim 19 is patentably distinguishable over Naoi.

Claim 20 defines a computer-readable storage medium having limitations similar to those set out in claim 13 and is patentably distinguishable over Naoi at least for the same reasons.

Claims 21 and 32 depend from claim 20 and are distinguishable over the Naoi reference at least for the same reasons. Also, the rejection of claims 21 and 32 under 35

U.S.C. § 102 is improper for the reasons set out above regarding claims 2 and 29.

Independent claim 33 calls for an image rendering apparatus having limitations similar to those set out in claim 1. It follows that claim 33 is patentably distinguishable over Naoi at least for the same reasons.

Claims 34-35 depend from claim 33 and are distinguishable over the cited art for at least the same reasons.

Claim 36 defines an image-rendering method having limitations similar to those set out in claim 7. Claim 36 is therefore patentably distinguishable over the Naoi patent at least for the same reasons.

Claim 37-38 depend from claim 36 and are distinguishable over the art at least for the same reasons.

Accordingly, the withdrawal of the rejection under 35 U.S.C. §102 is respectfully requested.

The Examiner also rejected claims 2, 8, 14, 21, 29 and 32 as being unpatentable under 35 U.S.C. § 103 over Naoi in view of Kaasila (U.S. Patent No. 6,437,793). It is submitted, however, that the claims are patentably distinguishable over the references.

Claims 2 and 29 depend from claim 1, claim 8 depends from claim 7, claim 14 depends from claim 13, and claim 32 depends from claim 20, and each is distinguishable over Naoi at least for the reasons described above. Additionally, Naoi does not suggest the limitations called for in claims 2, 8, 14, 21, 29 or 32, as acknowledged by the Examiner.

The Kaasila patent is directed to antialiasing two-dimensional shapes that are displayed at a lower pixel resolution than an outline description of the shape. The antialiasing is carried out by calculating pixel coverage values of a bitmap representation of the character. (See col. 1, line

49 - col. 2, line 13; and col. 11, lines 30-54). Kaasila does not remedy the deficiencies of Naoi.

It follows that neither Naoi nor Kaasila, whether taken alone or in combination, suggests or contemplates the limitations defined in claims 2, 8, 14, 21, 29 or 32. Therefore, claims 2, 8, 14, 21, 29 and 32 are each patentably distinct and unobvious over the references.

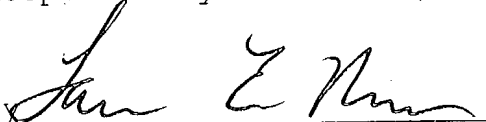
Accordingly, the withdrawal of the rejection under 35 U.S.C. §103 is respectfully requested.

As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that the Examiner telephone applicant's attorney at (908) 654-5000 in order to overcome any additional objections which the Examiner might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: August 3, 2004

Respectfully submitted,

By 

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